

## PATENT COOPERATION TREATY

PCT

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY  
(Chapter II of the Patent Cooperation Treaty)

(PCT Article 36 and Rule 70)

REC'D	21 MAR 2006
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Applicant's or agent's file reference <b>PCT-0412-01</b>	<b>FOR FURTHER ACTION</b>	See Form PCT/IPEA/416
International application No. <b>PCT/KR2004/003232</b>	International filing date( <i>day/month/year</i> ) <b>10 DECEMBER 2004 (10.12.2004)</b>	Priority date ( <i>day/month/year</i> ) 10 DECEMBER 2003 (10.12.2003)
International Patent Classification (IPC) or national classification and IPC <b>F16L 41/04(2006.01)i</b>		
Applicant <b>JEONG, In-Yeol</b>		
<p>1. This report is the international preliminary examination report, established by this International Preliminary Examining Authority under Article 35 and transmitted to the applicant according to Article 36.</p> <p>2. This REPORT consists of a total of <u>4</u> sheets, including this cover sheet.</p> <p>3. This report is also accompanied by ANNEXES, comprising:</p> <p>a. <input type="checkbox"/> (sent to the applicant and to the International Bureau) a total of _____ sheets, as follows:</p> <p><input type="checkbox"/> sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications authorized by this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions).</p> <p><input type="checkbox"/> sheets which supersede earlier sheets, but which this Authority considers contain an amendment that goes beyond the disclosure in the international application as filed, as indicated in item 4 of Box No. I and the Supplemental Box.</p> <p>b. <input type="checkbox"/> (<i>sent to the International Bureau only</i>) a total of (indicate type and number of electronic carrier(s)) _____, containing a sequence listing and/or tables related thereto, in electronic form only, as indicated in the Supplemental Box relating to Sequence Listing (see Section 802 of the Administrative Instructions).</p> <p>4. This report contains indications relating to the following items:</p> <p><input checked="" type="checkbox"/> Box No. I Basis of the report</p> <p><input type="checkbox"/> Box No. II Priority</p> <p><input type="checkbox"/> Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability</p> <p><input type="checkbox"/> Box No. IV Lack of unity of invention</p> <p><input checked="" type="checkbox"/> Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; <small>citations and explanations supporting such statement</small></p> <p><input type="checkbox"/> Box No. VI Certain documents cited</p> <p><input type="checkbox"/> Box No. VII Certain defects in the international application</p> <p><input type="checkbox"/> Box No. VIII Certain observations on the international application</p>		

Date of submission of the demand <b>08 JULY 2005 (08.07.2005)</b>	Date of completion of this report <b>28 FEBRUARY 2006 (28.02.2006)</b>
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## INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International application No.

PCT/KR2004/003232

## Box No. I Basis of the report

1. With regard to the language, this report is based on the international application in the language in which it was filed, unless otherwise indicated under this item.
 

This report is based on translations from the original language into the following language English, which is the language of a translation furnished for the purposes of:

  - international search (under Rules 12.3 and 23.1(b))
  - publication of the international application (under Rule 12.4)
  - international preliminary examination (under Rules 55.2 and/or 55.3)
  
2. With regard to the elements of the international application, this report is based on (*replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report*):
 

the international application as originally filed/furnished

the description:  
pages \_\_\_\_\_ received by this Authority on \_\_\_\_\_ as originally filed/furnished  
pages\* \_\_\_\_\_ received by this Authority on \_\_\_\_\_  
pages\* \_\_\_\_\_ received by this Authority on \_\_\_\_\_

the claims:  
pages \_\_\_\_\_ as originally filed/furnished  
pages\* \_\_\_\_\_ as amended (together with any statement) under Article 19  
pages\* \_\_\_\_\_ received by this Authority on \_\_\_\_\_  
pages\* \_\_\_\_\_ received by this Authority on \_\_\_\_\_

the drawings:  
pages \_\_\_\_\_ as originally filed/furnished  
pages\* \_\_\_\_\_ received by this Authority on \_\_\_\_\_  
pages\* \_\_\_\_\_ received by this Authority on \_\_\_\_\_

the sequence listing and/or any related table(s) - see Supplemental Box Relating to Sequence Listing.
  
3.  The amendments have resulted in the cancellation of:
 

the description, pages \_\_\_\_\_  
 the claims, Nos. \_\_\_\_\_  
 the drawings, sheets \_\_\_\_\_  
 the sequence listing (*specify*) : \_\_\_\_\_  
 any table(s) related to sequence listing (*specify*) : \_\_\_\_\_
  
4.  This report has been established as if (some of) the amendments annexed to this report and listed below had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).
 

the description, pages \_\_\_\_\_  
 the claims, Nos. \_\_\_\_\_  
 the drawings, sheets \_\_\_\_\_  
 the sequence listing (*specify*): \_\_\_\_\_  
 any table(s) related to sequence listing (*specify*) : \_\_\_\_\_

\* If item 4 applies, some or all of those sheets may be marked "superseded."

## INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

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**Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement****1. Statement**

Novelty (N)	Claims	1-53	YES
	Claims	None	NO
Inventive step (IS)	Claims	2-3, 9-19, 22, 24, 26, 28, 30-32, 35, 37, 39, 41, 43-45, 47-53	YES
	Claims	1, 4-- 8, 20, 21, 23, 25, 27, 29, 33, 34, 36, 38, 40, 42, 46	NO
Industrial applicability (IA)	Claims	1-53	YES
	Claims	None	NO

**2. Citations and explanations (Rule 70.7)****1. Citations**

- D1: JP-A-2003-329187 (19 November 2003)  
D2: JP-A-2003-240182 (27 August 2003)  
D3: KR-Y1-20-188526 (15 July 2000)  
D4: KR-Y1-20-275929 (18 May 2002)

**2. Novelty**

- (1) The invention of claim 1 of the present invention relates to an adapter for branching a hose comprising a body having an inlet and an outlet, a cone-type head formed near the inlet, a first coupling unit coupled with the inlet, and a second coupling unit coupled with the outlet.
- (2) Claims 1-19 limit some technical features of claim 1 or add some technical features to claim 1.
- (3) Claim 20 relates to an adapter for branching a hose comprising a body having an inlet and an outlet, a cone-type head formed near the inlet, and a coupling unit, wherein an inserting unit is formed at an upper portion of the head and a pressing unit is formed at a lower portion of the head.
- (4) Claims 21-32 limit some technical features of claim 20 or add some technical features to claim 20.
- (5) Claim 33 relates to an adapter for branching a hose comprising a body having an inlet and an outlet, a head having a packing and formed near the inlet, a locking step for fixing the packing, and a coupling unit, wherein an inserting unit is formed at an upper portion of the head and a pressing unit is formed at a lower portion of the head.
- (6) Claims 34-53 limit some technical features of claim 33 or add some technical features to claim 33.
- (7) None of the inventions of D1-D4 are the same as the inventions claimed in claims 1, 20 and 33 of the present application.

(Continued on Supplemental Sheet.)

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**Supplemental Box****In case the space in any of the preceding boxes is not sufficient:****Continuation of:****Box V.**

- (8) Therefore, the subject matter of claims 1–53 is considered to be novel under PCT Article 33(2).

**3. Inventive Step**

- (1) D1–4 disclose a technical feature corresponding to the body of claim 1 of the present application having an inlet and an outlet. D1 and D2 disclose a technical feature corresponding to the cone-type head of claim 1 which is formed near the inlet, and D3 and D4 disclose technical features corresponding to the first coupling unit coupled with the inlet and the second coupling unit coupled with the outlet, as set forth in claim 1 of the present application.
- (2) Claims 4 and 5 integrate two technical features of the head and the body. D1 and D2 have a head and a body integrally formed, and consequently both technical features of claims 4 and 5 are similar to those of D1 and D2.
- (3) Claims 6–8 have the body having an extension groove and an extension plate, which are similar to the elements of the body as set forth in D1 and D2.
- (4) D1–D4 disclose technical features corresponding to the technical features as set forth in the preambles of claims 20 and 33, and D1 and D2 disclose technical features corresponding to the inserting unit and pressing unit as set forth in the characterizing parts of said claims.
- (5) Claims 21, 23, 25, 27, 29, 34, 36, 38, 40 and 42 specify the inserting unit of the head, which is similar to the head of D1 and D2.
- (6) Claim 46 adds a packing to the invention of claim 20. D1–D4 disclose a technical feature corresponding to the packing.
- (7) Therefore, in view of D1–D4, claims 1, 4–8, 20, 21, 23, 25, 27, 29, 33, 34, 36, 38, 40, 42, and 46 are considered to lack an inventive step under PCT Article 33(3).

**4. Industrial Applicability**

- (1) The present invention, which relates to an adaptor for branching a hose, can be applicable to the pipe connection industry.
- (2) Therefore, the present invention is considered to have industrial applicability under PCT Article 33(4).